How Hail Forms

-Supercooled water will freeze on contact with ice crystals, frozen rain drops, or other nuclei (dust, soot, smoke).

-Hail stones grow by circulating in the storms updrafts and downdrafts and collide with additional supercooled water droplets. Hail stones show a ring pattern if cut in half.

-The hail falls when the thunderstorm's updraft can no longer support the weight of the ice or the updraft weakens.

Hail

- Hail is considered severe when it reaches 1” (or Quarter size).
- Large hail in the southwest is relatively rare, but have reached golf ball size.
- WHEN REPORTING HAIL, USE THE LARGEST SIZE SEEN.
- Stronger updraft = Larger Hail

National Weather Service

Hail Sizes

Non-Severe Hail

Pea	1/4”
Mothball	1/2”
Penny/Dime	3/4”
Nickle	7/8”

Severe Hail

Quarter	1”
Half-Dollar	1 1/4”
Ping-pong Ball	1 1/2”
Golf Ball	1 3/4”
Tennis Ball	2 1/2”
Softball	4 1/2”

On July 22, 2010, the largest hail stone ever recorded fell in Vivian, SD. It was 8.0 inches in diameter, 18.625 inches in circumference, and weighed 1.9375 pounds. It was estimated that the updraft in the thunderstorm that would have allowed for this size hail stone to form was 160-180 mph.

Hail Size Examples

Be careful when reporting hail sizes. Use coin sizes if possible.